plane GRUMMAN news

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End of the beginning—goodbyes for last LM

On Grumman's Bethpage airstrip sat the Guppy—the old cargo carrier that looked more like a bloated whale than an aircraft. It was a fairly common sight for it had been the flying workhorse that regularly ferried an ascent or descent stage of the Lunar Module to Cape Kennedy in eastern Florida. There LMs were mated to gigantic and thundering boosters that powered the Apollo manned missions into space and to the moon.

One of those Guppy-delivered LMs first made it to the moon July 21, 1969, and two astronauts, first Neil Armstrong, then Ed (Buzz) Aldrin, stepped on to the moon, while Mike Collins orbited it in the mother ship, the Command Service Module.

The world stopped. . . .

The unattainable had been achieved. Thousands and thousands of years of dreaming, of speculating, had suddenly ended. The world—tense, fearful, not able to comprehend—waited and waited as liftoff and the long journey in space progressed. Then two Americans put the first footprints on the lunar surface.

Would they now be able to lift off from the moon? To join Collins in the CSM? To live through the fierce heat of re-entry—or skip off into space and be lost? Or to land in the wrong area of the earth, to be smash-

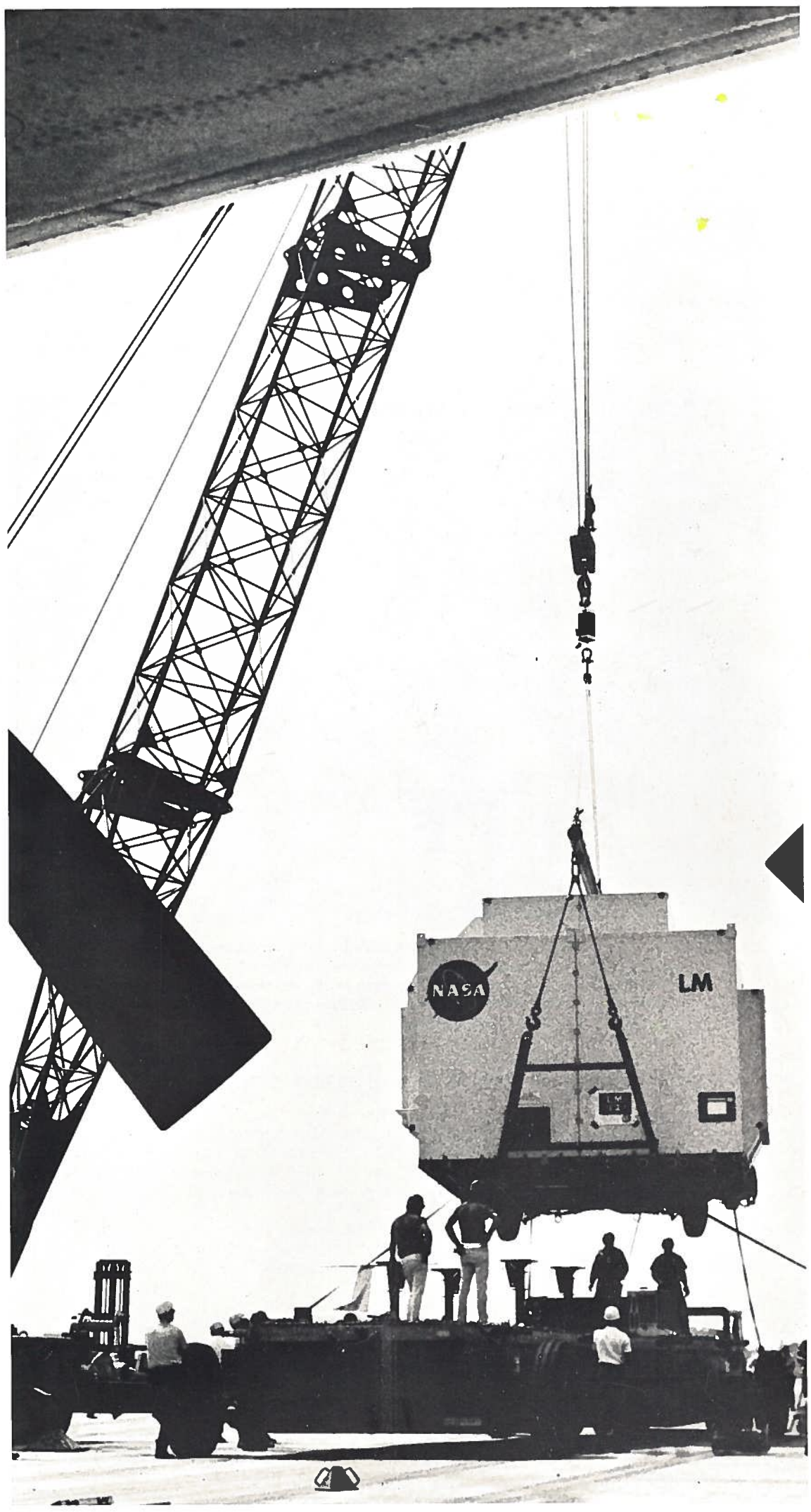
(Continued on page 8)

. . . but NASA gives boost to Shuttle team

The whole complexion of the Space Shuttle (Spaceplane) changed last week when the National Aeronautics and Space Administration summoned the major Shuttle contenders to Washington and awarded each team—McDonnell Douglas, North American Rockwell, and Grumman/Boeing—a contract extension in equal amounts to undertake additional studies for the next six months. "We're being moved to the same Space Shuttle Program office as the other contractors, at the same financial level," said Vice President Larry Mead, director of the Spaceplane Program. "We've reached equal standing, after a year of very hard work."

The new plans set forth by NASA seem to be revolving around ideas that have been developed by the Grumman/Boeing team, working with the NASA Manned Spacecraft Center in Houston, the Marshall Space Flight Center in Huntsville, and NASA Headquarters in Washington, D. C. "The study work NASA wants," Mead said, "is baselined around the concept of an expendable booster as an interim system. They want us to look at various candidates for a booster, such as the S-1C (first stage of Saturn V), variations on the Titan, and various solid rocket clusters. The preferred approach includes an orbiter with external fuel tanks, proposed by us, and a heat sink booster.

(Continued on page 2)



Up in the air. **In the background a crane, in the foreground part of one of the propellers of the Guppy—and, appropriately, in the center, the last stage of the last Lunar Module to be built and tested at Bethpage. The LM is being hoisted preparatory to being placed aboard the sky-whale for its trip to the Kennedy Space Center. (Photo by Harry Prodromides)**

Shuttle team gets big boost from NASA

(Continued from page 1)

"In the interest of not using too much of the NASA budget in any one year," he continued, "they are considering three or four flights a year over three years with expendable boosters, then moving over to a fully reusable, new booster, as previously planned for the Shuttle, for the long pull. That would allow a phased development program, where we would start with the orbiter and interim booster and refer the major development of the fully reusable booster until three or four years down stream."

Design of the orbiter would begin when contract is let (July 1972). Request for Proposal is due next December.

"We're obviously delighted that this has come about," Mead said last week. "It's the culmination of a year of hard work by dedicated, clever people. We're pulling up at least even with our competition. Now to maintain that momentum to make sure we win the final contract. . . . "

Program plans

NASA's plans for managing the Space Shuttle Program were announced two weeks ago: Overall management will be in the headquarters office of Manned Space Flight, in Washington, D. C. Associate Administrator for Manned Space Flight, Dale Myers, has assigned responsibilities to the three MSF centers as follows:

Manned Spacecraft Center, Houston, will have program management responsibility for program control, overall systems engineering and system integration, and overall responsibility and authority for definition of those elements of the total system which interact with other elements. MSC will also be responsible for the orbiter stage of the Space Shuttle.

Marshall Space Flight Center, Huntsville, Ala., will be responsible for the booster stage and the main engines for the Shuttle.

Kennedy Space Center, Fla., will be responsible for design of launch and recovery facilities.

Missions for Spaceplane include the deployment of unmanned spacecraft, satellite repair and retrieval, space rescue, short duration orbital science and applications. The new studies just announced are seen as a practical approach to spreading out the space budget in a program acceptable to Congress over the next few years. Meantime, of course, the U.S.S.R. is spending a very sizable percentage of the national budget on manned space flight.

Ready for takeoff. **Bud Harrelson and Jerry Grote examine early model of Grumman orbiter with Vice President Jack Rettaliata during visit to Plant 5 last week. Perhaps the N.Y. Mets stars, considering their standing in the National League race, could better use the Space Shuttle booster to aid their stuttering title chase. (Photo by Bob Settles)**

ESO offering bargain rates for Beach show

If your idea of theater is a live cast performing in the great outdoors, and if your preference is for musicals, then point your car toward Jones Beach beginning July 8.

"The Sound of Music" is the attraction, featuring Constance Towers and John Michael King. Your always ready source of information and tickets is the Employee Services Office.

On any nights other than a Friday or a Saturday, ECO can provide a discount, $5 instead of $5.90 for choice seats, $3.75 instead of $4.50 for general admission.

Ticket availability is on a first-come first-served basis. Transactions must be made by check or money order.

CALENDAR of events

The Calendar of Events will be discontinued until September.

Amateur Radio Club: Sat. & Sun., June 26 & 27, 11 a.m., McKay Field, ARRL Field Day exercise. Emmett Goodman, Ext. 87125.

Chess Club: Tues., 5 p.m., Plt. 3 Cafe, tournament, games. Alex Ikonnikow, Ext. 7592.

Coin Club: Wed., 12:05-12:50, Plt. 25 Vendor Conf. Rms. Ken Hale, Ext. 1936.

Dance Club: Every Tues., 8:30-10 p.m., St. Francis of Assisi, Northgate & Clay Pitts, Greenlawn, ballroom danc., $2/session. Len Luke, Ext. 9682.

Duplicate Bridge Club: Thurs., 5:45 p.m., Plt. 3 Cafe, reserv. not required, partnerships arranged. Pete Harrington, Ext. 1812.

Ex-Servicemen's Club: First Mon. of month, 7:30 p.m., PPlt. 28 Audit., exec. & gen. mtg. Al Kordula, Ext. 87259.

Family Campers: Thurs. thru Mon., July 1- July 5, Camplands, Swan Lake, N. Y., July 4 rally. Bill Lord, Ext. 2914.

Fencing Club: Fri., 5 p.m., Plt. 30 Cafe, competitive fencing & instruction. Joe Campisi, Ext. 1134.

Flying Club: Fri., July 9, Plt. 28 Audit., mon. mtg., FAA film. M. Gerry, Ext. 1396.

Horseback Rid. Club: Every Sun. Caren Carlson, Ext. 2725.

Rod & Gun Club: Wed., June 30, 5:30 p.m., John's Oasis, Hazel St., Hicksville, mon. mtg. Walter Schillinger, Ext. 57-617.

Announce plans to lower costs

In a move to lower overhead operating costs and improve efficiency, Grumman Aerospace is leaving four previously rented facilities. This will result in changes of physical location for a number of programs and departments.

The move **in no way** affects the earlier Corporate decision to reduce the workforce by 3,000 people during this year. It is simply a consolidation of efforts for better facility usage.

Closed or soon to be vacated are: Plant 38, Plants 34A and 34B, Plant 17, warehouse 10.

Plant 38, the Company's Training Center, has already been closed. People there are now located in Plant 39, the former home of the S/CAT (Space Craft and Assembly Test) program. The plant is located directly behind Plant 5.

About 120 Grummanites are now in Plant 39. Product Support Customer Training, under Don Wolf, will be busy with F-14 military training. In addition, the building will house the Training and Development Department, which has a continuing program of employee training both during and after working hours. Manager of Maintenance John McNamara turned over the keys of the re-arranged building to Administrative Vice President John O'Brien recently.

Plants 34A and 34B are now in the moving-out process. Personnel in 34A will move to 34D, whose people will go to Plant 15, where the E-2C program will be. Those in 34B will also be in Plant 15. (A lot of people now on F-14 in Plant 15 will soon work in Plant 1.)

Warehouse 10 in Plant 17 will be shut down.

Have a happy!

Floating holiday coming up.

This announcement by Grumman Aerospace President Bill Zarkowsky makes it official.

"The 'Floating' Holiday for 1971 will be observed on Friday, July 2, 1971.

"Since Independence Day falls on Sunday this year, the holiday will be observed on Monday, July 5.

"Accordingly, all plants will be closed on Friday, July 2, and Monday, July 5, and all personnel actively employed will be paid for these days."

The next distribution of Plane News will be on Monday, July 12, and on Monday, July 26, and then not again until August 27.

Moon rehearsal for Apollo crew

Even as the last of the Lunar Modules, LM-12, was being checked out and shipped to Kennedy Space Center last week, LM-10 was sitting high on the booster in preparation for that next extended journey to—and on—the moon. Apollo 15, carrying LM-10, is due for launch from the Cape on Monday morning, July 26.

The crew are all Air Force men: Col. David R. Scott, who flew on Gemini 8 in 1966 and was pilot of the Command Module on Apollo 9 in 1969, is the Apollo 15 commander. Lt. Col. James Irwin is Lunar Module pilot and Scott's partner for moon exploration. Piloting the Command Module, which will go into a holding pattern around the moon until time to pick up the lunar pedestrians August 2, will be Maj. Alfred Worden.

"These guys are really working hard," said Chuck Kroupa, Grumman's director of Operations at KSC. "They're training with the lunar roving vehicle (LRV) and in the evenings studying all their extra-vehicular activity: traverses, the unfamiliar lunar topography."

The time schedule for this Apollo makes possible some real-time daytime viewing. Launch is scheduled for 9:34 a.m. Monday, July 26. Lunar landing comes at 6:15 a.m. July 30, and three lunar explorations, using the LRV, are planned for 9:24 a.m. Saturday, July 31; at 6:44 a.m. August 1; and at 3:24 a.m. August 2.

The landing site for the 12-day Apollo 15 mission is the Hadley-Apennine area of the moon.

OBITUARIES

Plane News has received word that death has come to the Grumman personnel listed below. We extend sincere sympathy to relatives and friends.

HARRY DEUTSCH of Vehicle Drafting, Plant 25, died June 10 at the age of 55. He had been with Grumman since 1965, and he lived at 415 Lawrence Rd., West Hempstead.

'Carrier' tests for F-14; ready 1-X at Calverton

Tomcat No. 2 is in the air again after a scheduled layup of 14 days.

As of Monday, June 21, F-14 No. 2 was performing very well and had logged in 24.7 hours in 12 test flights. Pilots and program people were pleased by the absence of big crabs.

Renso (Cappy) Caporali, assistant Engineering manager of F-14 at Calverton, described the layup as routine, "a time when new systems are added to the aircraft, building it up in anticipation of low-speed performance tests."

Also in a hangar at Plant 7 is the almost-ready Tomcat 1-X, the high-speed test aircraft. It will do the performance tests assigned to F-14 No. 1, which crashed late last December. Aircraft 1-X, unlike No. 2, will be able to sweep back its wings for high-speed tests. No. 2 flies as a fixed-wing aircraft for low-speed work.

Flight Test Manager Joe Hannan explains the roles of Tomcats 2 and 1-X:

"No. 2 is what we usually call a "stall" aircraft. We want it to stall (though that effort won't be made until much later in the test-flight program). The idea of the stall, principally, is to test and document how Tomcat pulls out of the stall.

"Right now, though, we're concerned with other matters. One is approach power compensation—evaluation of how Tomcat handles as it comes aboard a ship."

'Flight deck'

Of course, there's no "ship," no aircraft carrier at Calverton; but flights can be made as though there were a carrier there. Land-based equipment identical with that aboard ship is used. Picture the scene:

Tomcat is coming in for a landing; the landing strip is the "carrier." As the plane approaches, the first thing it sees is a light source projecting a beam onto a concave mirror. A large orange light (called the "orange meatball" by pilots) is on the concave surface, and both to the left and to the right of the mirror are four green lights at right angles to the landing strip. As a plane flies in for landing, the pilot keeps his eye on the "meatball" in order to know whether he is on the correct glide slope. Otherwise, he could crash into the carrier or over-fly it. In he comes. . . . and as he touches down (if on a carrier), arresting gear brings the aircraft to an abrupt—**very** abrupt—stop.

After initial tests here, Tomcats will fly to the Patuxent River Naval Air Test Center where the arresting gear and catapults can be utilized.

To get back to the role of Tomcat 1-X, the high-speed aircraft, its wings can be swept back at angles appropriate for various flight conditions, such as side-slipping, tight turns, or fast level flight. "So these two aircraft," Hannan says, "tell the basic story of what Tomcat can do structurally and aerodynamically. Bear in mind, though, that they fly without the avionics systems. Weapons system test come with Tomcat No. 4. That's when Point Mugu really gets into the big act with the AWG-9 Phoenix missile systems."

Assembly crew praised

In the current world, No. 2 is flying and 1-X is being prepared for a late July first-flight. The final assembly crew at work now is headed by Joe Walker and Vinnie DeStefano. "The people who are doing the job—some 80 of them, working with supervisors like John Gazzola, Stan Maile, and Bob Santiago, and Herb Schmidt—are the ones who deserve the credit for our great progress," says Walker. "All our supervisors are responsible for completion of final-assembly work. Their leadership and technical expertise have kept us on the first-fly target date.

"An awful lot of credit must also be given to people in Quality Control, Product Support, and Engineering, who support the manufacturing effort 24 hours a day seven days a week."

Jack Buffa of QC can attest to that. He's watched No. 2 and now 1-X progress, step by measured step. He's seen the checks and re-checks. He has to see them: He's the man who must put the stamp of approval on work done in the shop. Says Buffa:

"No new aircraft get out of here to go to flight testing before they've passed the 'physical'—and that physical is rugged. We make sure it's flight-ready before we move it out of the hangar."

plane GRUMMAN news

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Honor Tripp, Kelly

Vice President Ralph Tripp, director of LM, OAO, HEAO, and LST Programs, has been elected to the national Board of Directors of the American Astronautical Society for a term of three years, starting next month. Vice President Tom Kelly, deputy director of the Space Shuttle Program, was named a Fellow of the Society.

Locally, Saul Ferdman, director of Advanced Space Programs, has been elected chairman of the New York Section of AAS, and Bill Djinis of Advanced Space Programs and Steve Greene of Space Shuttle are directors.

Industry tour ends. **Senior Vice President Corky Meyer presents certificates to Air Force officers who just finished 10-month 'Education with Industry' program (L to R): Maj. John Swann, Maj. Steven Schwartz, Capt. Daniel Ozley, Maj. Gordon Seaburg. (Photo by Larry Van Wallendael)**

Four Air Force men wind up 10-month industrial program

Senior Vice President Corky Meyer presented diplomas last Friday to four Air Force officers who have successfully completed a 10-month program at Grumman in the area of industrial planning and procurement. The officers involved were Major Gordon E. Seaburg, Major John K. Swann, Major Steven G. Schwartz, and Captain W. Daniel Ozley.

They began their tours at Grumman last September and are departing for new assignments on June 25. The group represents the sixth Education With Industry Program conducted at Grumman and is the largest to date. Four student officers are the maximum number that the Air Force Institute of Technology will assign to any one aerospace company. Ken Rodgers of the Grumman Training and Development Department coordinates the program.

Of their tour at Grumman, Major Seaburg said, "I can speak for all four officers when I say that we have had a stimulating and enjoyable 10-month tour of duty at Grumman. We received an excellent education and we appreciate the wholehearted support and cooperation of all the Grumman personnel who helped in making our assignment a success."

Mutual benefit

"Who benefits most from the EWI Program?" Grumman Aerospace President Bill Zarkowsky was asked.

"In my opinion, it was an equal exchange," he replied. "The student officers get the broadest possible exposure to the total Grumman operation, which is of great benefit to them. We, in turn, have the opportunity to use the unique skills the officers bring with them, and also we enjoy listening to their objective opinions concerning the way we do things at Grumman. It is imperative that we at Grumman do all that we can to provide the excellence of leadership that is so necessary to the success of our Armed Forces."

The 10-month tour for the officers is composed of three phases. Phase I is a 10-week period of orientation that includes visits and discussions with all levels of Grumman management. Phase II consists of 20 weeks of one- or two-week assignments in specific areas chosen by the student officers. Phase III is a 10-week working assignment generally in areas that will relate to future Air Force assignments.

New assignments

Major Seaburg is a senior pilot who elected to spend Phase III on the A-6A program in Production Planning & Control, working with Hal Pabst. His next assignment will be in Quality Assurance - Air Force Contract Management Division, Los Angeles AFS, Calif.

Major Swann is an instructor navigator whose Phase III assignment was spent in two areas. He worked with Fred Roemer in the Product Support Business Office for five weeks and in the NAVPRO Production Management Office. He leaves shortly to assume his new duties in the Defense Contracts Administration Services office, Huntsville, Ala.

Major Schwartz has a background in Electronic Warfare. His final program assignment was in EA-6B Program Management with Joe Sikora. His orders assign him as a navigator on an EC-121, flying out of Korat, Thailand.

Captain Ozley's most recent assignment prior to coming to Grumman was that of a missile combat crew commander. He divided his Phase III into five-week tours in Cost Proposals with Dick Klier and R&D Contracts with Bill Wange. He will report to the Procurement Contracting Office-Guided Bomb SPO, Eglin Air Force Base, Fla.

C. M. Ketcham
Sys. Install.

A. D. Murphy
Elect. Fab.

W. C. Shepherd
Prod. Ctl.

R. A. Kennard
Mach. Ops.

H. T. Johnson
Cost Anal.

H. J. Tutrone
Propul. Test

J. E. Grams
Supp. Equip.

F. Dorfmeister
Tool Fab.

R. Haberthur
Chem Mill

Many with long service mark anniversaries in June

Grumman's anniversary roster for June is long on 30-year men and shorter than usual on Silver Anniversary celebrants. The list of those joining the company in early summer of 1941 is strong in manufacturing skills, applied in that year to the building of Wildcats, Martlets, and amphibians.

Thirty-seven men have contributed 30 years of service to Grumman:

PLANT 1: Frank Quinci, Sub-Assembly - Major; Edward J. Schlott, Fuselage Forward Sub & Majors; Charles A. Whitson, Engineering Material Rev.

PLANT 2: Frank Scherer, Press; Leon Polkowsky, asst. foreman, Spotweld; Anthony Kulynych, Parts Paint; Anthony J. Anzalone and Anthony J. Ceraso, Steel Parts Assembly; John Malanzuk, Ordnance; William S. Herr, T/M Methods Engineering; Joseph Shattes Jr., Industrial Engineering - Equipment Service; George E. Harned and Arthur J. Richards, Tool Fabrication - Templates.

PLANT 3: Winfield Irvine, Engraving; Albert M. Nasser, Plant Management & Staff; Arthur P. Giovagnoli, Machine Operation - Technical Service; Arno A. Lehtonen, Production Control - Records & Release.

PLANT 5: Joseph Baumann Jr., Avionics Installation; Alfred B. Sammis Jr., Mechanical Systems; James J. Jacobs, Wind Tunnel; John M. Coe, Vehicle Technology Management & Staff.

PLANT 6: Frank R. Mottl, Product Project Managers; Gustave C. Herold, Calverton Planning & Control.

PLANT 14: Francis Laurita, Hydraulics.

PLANT 17: Anton F. Sievers, B/P & Off-Site Warehouses.

PLANT 25: Alfred Van Wymersch, Mechanisms; Lawrence M. Mead Jr., Vice President and director, Space Shuttle Program.

PLANT 27: Anthony V. Mesiano, Plexiglass.

PLANT 30: Edward P. Hald, Machine Parts/Material; Matthew J. Mencke, GDS Business Programs.

PLANT 34: Aldo Donno, Product Support Business Management; Francis R. Cassidy, Power Plant & Environment; Henry O. Grack, Configuration Data Management.

PLANT 35: Leo A. Geyer, Production Development; Edward G. Clark, Project Engineering - Development Aircraft.

GDS: William Trilling, GDS Business Programs.

PLANT 52: Vincent T. De Lilla, foreman, MSC Manufacturing Shops.

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Silver Anniversary personnel, marking a quarter of a century in Grumman progress, are getting to be the select few as post-World War II drop in employment is reflected. The June list includes these 17 men:

C. Evers Jr.
Propulsion

J. C. Ohler
Ops. Anal.

R. A. Snyder
Veh. Tech.

A. E. Sobisek
Sys. Install.

R. Costantino
Inspection

G. Pritting
Transportation

W. D. Kelly
Sub-Assem.

F. F. Di Masi
Facil. Maint.

PLANT 1: Clifford M. Ketcham, Pre Flight Finals/System Installation; Alexander D. Murphy, Electronic Fabrication; Warren C. Shepherd, Production Control - Parts Control; Richard A. Kennard, Machine Operations Project Management; Harold T. Johnson, Cost Analysis & Value Engineering.

PLANT 2: Herbert J. Tutrone, Propulsion Test; Joseph E. Grams, Support Equipment Production; Frederick H. Dorfmeister, Tool Fabrication - Machine Shops.

PLANT 3: Ralph Haberthur, Chem Mill.

PLANT 5: Charles Evers Jr., Propulsion; John C. Ohler, Operations Analysis & Planning Research; Robert A. Snyder, Vehicle Technology Management.

PLANT 6: Arthur E. Sobisek, Pre-Flight Finals/System Installation; Rocco D. Costantino, Inspection-Mechanical.

PLANT 20: George Pritting, Transportation.

PLANT 27: William D. Kelly, Sub-Assembly.

PLANT 37: Frederick F. Di Masi, Maintenance/Repair/Operation Supply.

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Three women and 48 men have been on the job for 20 years:

PLANT 1: Carl Blahato, Pre-Flight Finals; John W. Sabisch, Production Control - Parts Control; Kenneth Wendell, Equipment Lines; Carl O. Lofgren, Power Plant Design.

PLANT 2: Edward P. Jolly, Heat Treat; James Robertson, Parts Paint; William J. Donovan, GSE Mechanical; Frank A. Jinglewski, Wing, Inner Panel & Combo; Robert Cozzette, Product Manufacturing Budgets - Program; Alfred Neuman and Henry Burdjak, Tool Fabrication - Jigs & Fixtures; Paul A. Lieb, Tool Fabrication - Machine Shops; John C. Czugh, Tool & Die Shop.

PLANT 3: Karl Hagen, Machine Shop; Guido Urzi, Alodine; Anthony Faga, Spotweld; Rocco J. Vignola, Parts Paint; Thomas P. Piccolo, Honeycomb Pre-Fit; Joseph A. Boltuc, T/M Method Engineering; Aubrey Bornscheur, Inspection-Mechanical.

PLANT 4: George W. Simpson, Equipment Lines.

PLANT 5: Joseph A. Kerwin, Static Test; John M. Dukarm and Franklin R. Noon, Surfaces & Assembly; Leonard H. Schmidt, Electronics Repair; Saverio Orella, T/M Engineering, Space Program; Eugene M. Reardon, Presentations Services.

PLANT 10: Arthur A. Glass, Quality Control Laboratory.

PLANT 15: Donna Demchuk, Weight Analysis.

PLANT 18: Lt. Joseph F. Oliveri and Sgt. William L. McDermott, Plant Protection.

PLANT 20: Raymond Repperger, Transportation.

PLANT 25: Willis H. Leonard, Environmental Test; Helen Chlanda, Contracts - Manned Space.

PLANT 30: Joseph A. Whelan Sr. and Neil E. Morris, Requirement Planning; Robert V. Johnson, Product Support Site Supply.

PLANT 33: Woodrow W. Wilkins, Facilities Maintenance; Joseph J. Montuori, Inspection - Support Equipment.

PLANT 34: William Fairclough, Product Support Provisioning Req.; John S. Townson, Reproduction Services.

PLANT 35: Henry J. Powers, Power Plant Design; Ralph B. Wittman, Aerodynamics; John K. Benz, Power Optics & Display; Hans K. Hinz, Systems Research; Nicholas S. Sinder, Special Projects.

PLANT 36: Jeremiah J. Mulvehill, Production Control Plant Stores & Distribution.

PLANT 38: Howard W. Brochyus, Training & Development.

PLANT 55: E. I. Mac Cleave, Personnel.

PLANT 77: James L. Boyle, Electrical Sub Assembly.

PLANT 90: Kenneth R. Frederick, Business Development.

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One woman and 34 men receive 15-year pins in June:

PLANT 1: Robert B. Nurnberger, Control Dynamics; Ernest R. Ranalli, Structural Analysts.

PLANT 2: Michael F. Kelly, Production Control Intra-Plant Transportation.

PLANT 3: John J. Knespler and Charles E. Heeger, Machine Shop; Paul A. Hentschel, Machine Operation - Technical Service.

PLANT 4: Robert H. Lemke, P/S Structural Mechanical Engineering Design.

PLANT 5: Charles Combs, Final Assembly; Edward A. Beacom, Static Test; Earle G. Sigerist, Instrumentation Planning.

PLANT 14: Wallace M. Collins Jr., Guidance & Navigation Equipment.

PLANT 17: Catherine Smith, Shipping & Spares Consolidation.

PLANT 25: Francis Schleider, Subcontract Management - Space; Michael F. Baumgarten, Aero Configuration; Herbert Watman, Aero Technology; Barrett Whitman Jr., Structural Analysts; Charles P. Estabrook, S/CAT Engineering Service.

PLANT 27: Jesse Combs Jr., Sub-Assembly - Major.

(Continued on page 5)

Schweickart's bid to scholars: 'Come fly with m

With a few swift strokes, Astronaut Rusty Schweickart painted a captivating word picture of the "awesome and foreboding" planet moon for a receptive audience last week. The occasion was a luncheon given by Grumman on June 16 to honor the new Grumman Engineering Scholars, their principals, their guidance counselors, and their new advisers.

Schweickart, who rehearsed for the lunar missions with Jim McDivitt and Dave Scott in early '69, put the universe in a new perspective. "Picture yourself in earth orbit," he told his audience. "Every 90 minutes you are completing an orbit. You cross over all kinds of boundaries, not really seeing them. The planet earth looks like a pretty small place.

"And then you stand on the moon, and the sky is black, and out there is 'home' — the blue and white planet earth. Holding your thumb at arm's length, you can blot out the whole of that little blue and white planet. You are a different person; this is a different world.

"But," he continued, "it's a great starting point. We have a new capability for space flight—how will we use it? Tom Paine (former National Aeronautics and Space Administration head) talked about space as 'the new continent' with velocity to get there as the price of admission. **There's no boundary on the other side."**

Sky Lab next

Schweickart, now involved with Sky Lab, the next manned spacecraft, said Sky Lab is just a start in the potential of space, and Space Shuttle is "the real key to making space accessible." He said conversations between the U.S.S.R. and the United States are taking place at the engineering level, a common system of docking and medical information being two subjects "drawing us together. Everyone I know is very excited about this."

High scores. Three Grumman Engineering Scholarships are awarded to dependents of Grumman employees, base lege Entrance Board scores. Winners, congratulated by Bill Schwendler (L), Chairman of the Executive Committee, Towl, Chairman of the Board, are Ann Bruckner, Kevin Sweeney, and Elizabeth Spiess. (Photos by Harry Prodr

The scholars arrived at Plant 5 before lunch, in time to receive their individually inscribed leather-bound certificates and the personal greetings of Clint Towl, Chairman of the Board of Grumman Corporation, and Bill Schwendler, Chairman of the Executive Committee. They then had a little surprise when they went to see Final Assembly in Plant 5. A spacesuit demonstration begun by Bill Eveland on what appeared to be a dummy astronaut with gold face shield suddenly came to life. Consulting Pilot Glen Kingsley was inside, and he turned on his wealth of information to answer their probing questions.

At the luncheon, held at Holiday Manor, Vice President Jack Rettaliata introduced the officials at the head table and Bill Wenzel, administrator of the scholar program, introduced the new scholars and then some who have been with Grumman long enough to reach prominence in their fields: Jack Saxe, deputy director of Operations & Plans for Product Development; Dave Holtje of Grumman Data Systems, assistant director for ATS Operations; Dick Kline, engineering manager of the Space Shuttle Program; Vice President Tom Kelly, deputy director of the Space Shuttle Program; and Pete Viemeister, President of Grumman Data Systems.

This year's Engineering Scholars and (in parenthesis) their Grumman advisers, are:

Grumman dependents Elizabeth Jean Spiess, daughter of Newt Spiess, director of Product Development (Marion Wang); Ann Elizabeth Bruckner, daughter of Ed Bruckner, P/S Electro Mechanical Design Engineering (Joe Alario); Kevin T. Sweeney, son of Joe Sweeney, F-14 assistant drafting supervisor (Dave Durst).

Nassau-Suffolk open winners: Henry R. Brandt (Bill Toolan); Lawrence M. De Vito (Ronald Wohlers Jr.); Jeffrey L. Doninger (Andy Vitzthum); Jorge Gustavson (Connie Blyseth); Lawrence M. Herman (Joe Traina); Jeffrey M. Schweiger (Louis Kaufman II); Thomas H. Wood (Marc Hoff).

Alternates: Peter J. Brofman (Harry Mead); Peter A. Kelt (Dick Sanzeri); Andrew M. Ziolkowski (Bruce Wetzel).

Space man. Rusty Schw shares vision of 'a different w space errands will become

Service roster . . .

(Continued from page 4)

PLANT 28: Ronald W. Anders, Personnel Administration.

PLANT 30: Carl A. Paladino, Treasurer, Grumman Aerospace; Martin J. Zenk and Anthony Quinn, Equipment Engineering - Proc/Serv. Engineering; Charles E. Lane, Corporate Audit & Procedures.

PLANT 33: Roy G. Kandler, Avionics Installation.

PLANT 34: William L. Kelley, Product Support Personnel; Stephen G. Norton, Systems Design; Ronald R. Chamberlin, Product Support Technical Writing.

PLANT 35: John J. Leoniak, Mechanical Systems; Russell H. Hagerman, Mechanisms; Richard H. Marshall, Special Projects; Alan C. Mills, Quality Control Supplier.

PLANT 40: Paul S. Pelletier, GDS Business Programs.

PLANT 75: Richard E. Halsey, P/S Aircraft Systems Service.

PLANT 83: Joseph D. Albanese, KSC Quality Control; Raymond R. Russo, KSC Manufacturing Shops.

Haring stands out in Rose Show

"This was most difficult show we've had to judge this year," said Judge Arthur Liers of the recent Rose Show at Plant 5 after the last award had been given out. "All the entries are excellent; four or five I saw deservd first prize. . . . We want to congratulate all of you." The other two judges, Joseph Burbeck and Dr. Maynard Lemrow, agreed. And they should know, being members of the American Rose Society, the Long Island Rose Society, and Consulting Rosarians.

Vice President Tom Rozzi presented Pete Haring with the lion's share of awards, 11 in all, tying his record of last year. His "Red Lion" was chosen as Queen of show.

Dorothy Kappenberg, a name synonymous with flowers, took home five awards and Chuck Belensky took first place and the Jackson & Perkins Award again with his floribunda spray. And while the "pros" did all right, the novices captured their fair share of the prizes, too. Novice Bill Hill picked up three awards and Joe Schaefer was clutching four ribbons as he left the Plant 5 cafeteria. Ed Siebert swapped his novice standing for a blue ribbon. Ed was away on business but his daughter, Carolyn Siebert of Investment Plan, Plant 28, accepted for him.

Holding the flower shows in more than just one plant has stimulated a lot of new interest, according to Kay Zuk, Garden Forum director. The next show, featuring chrysanthemums, dahlias, and fruits and vegetables will be in Plant 28 on Wednesday, October 27.

Pete Haring

Oomph! **Teeing off in the annual spring golf tourney at Bethpage, Tony Cherry lets go with a blast. Behind him, team members Ed Schlott and Wally Langdon appear calm and composed — they haven't teed off yet. (Photo by Dick Waldman)**

Suppa's 75 leads tee tourney; Pinehurst has 'mixed' appeal

It wasn't what you would call an ideal golf day—the weather turned cold and rainy — yet approximately 60 persons teed off at Bethpage State Park June 15 in the Athletic Association's annual spring kickers tourney. Willie Suppa put together a 40-35 on the Blue course to earn medal honor with a three-over par 75, easily outscoring Caesar Roscigno, who had 81.

Among the many winners during the 18-hole competition were: low gross, seniors—Tony Lombardi, 46-44-90; low net—Larry Anderson, 83-11-72; low net, seniors—Bob Terry, 90-16-74; low net, ladies—Eileen Toomey, 129-50-79; longest drive—Larry Anderson, 250 yards; closest to pin—Tony Lombardi, 8 feet.

Mixed play popular

Although the weather wasn't much better the next day, June 16, for the first Mixed Pinehurst event of the season, there was a different "air" in the air. It was fun day, although Howard Dunn and Frieda Giancona proved the grouches of the 30-team (man-woman) field. Howard and Frieda turned in a two-over par 37 on the front nine of the Yellow course to capture scoring laurels.

But the prizes, at least in this competition, weren't always to the surest or the swiftest. Most of the prizes were handed out during a special kickers' drawing. The most difficult chore of the day was trying to take a handicap that would assure a net score between 30-40, thereby qualifying a team for the kickers. Howard and Frieda, for instance, kicked themselves out of the kickers by taking an 8 handicap. Combined with their score, 37, it reduced them to 29—alas, too low for the drawing.

Next Mixed Pinehurst is set for Wednesday, July 21. Entry fee, $4 each, will cover greens fee and contribution toward kickers prizes. Sign up early with Mike Cherry, GAA, Plant 28B, Ext. 2133.

George Pennecke and Len Trifaro fired 40s for nine holes at Commack Hills to pace individual scoring in the Aerospace loop, while Wally Langdon turned in a 42 and Bill Slawata scored 48. Langdon and Joe Mignon, otherwise known as the Hackers, hold a one-half point lead over the Scooters, comprised of Trifaro and Charlie Brown.

In the Runamuck league, Carmine Vitale toured nine holes of the Yellow course at Bethpage in 41, while Aubrey Green used a birdie-3 on the seventh hole to finish at 42, one stroke ahead of Roy Kudrzycki.

Playing on the same Yellow layout at Bethpage, Frank Galluccio of the Bearcat circuit turned in a 40, finishing one stroke ahead of John Dalessio and two in front of Al Burger. Dick Moulton's 46 and Randy Soper's 47 were earned on the Blue course. Last week, Moulton came back with 42 on the Red course, while Al Zarod and Tony Lombardi turned in cards of 43. Tony dropped a birdie-2 on the 160-yard fourth hole.

Grumman tops LILCO

Captain Jim Alverson led the Grumman links team to a 7-1 victory over LILCO last week at Bethpage State Park while shooting a four-over-par 52 for 12 holes on the Black course. Alverson had two birdies, on the 470-yard fourth hole and the 393-yard 15th, while pacing the varsity to the first win in defense of its L.I. Industrial crown.

Tony Cisco and Bob Holsten teamed up to sweep four points as both registered 54, six over for 12-hole play. Holsten also scored a birdie on the par-5 fourth. Larry Anderson, the fourth member of the Grumman team, soared to 58, 10-over-par for the round.

Twisted Ducks' wins stun league; Soul Brothers Wyandanch kings

Monday night softball will never be the same again. It may be that no Grumman league will be the same. Perhaps—and we shudder at the prospect—all of softball has suffered a traumatic experience. The impossible has happened: The Twisted Ducks, whose record last season was 0-12, began 1971 with **a win!**

And then they won another! Perhaps the world is flat, that water runs uphill, that the laws of mathematics have been repealed.

Before the D'Amicos realized that this was the season opener, the Twisted Ducks had pounded out six runs on the strength of roundtrippers by Rich Capria, Billy Maxwell, and Tom Ramberg. The reeling D'Amicos chipped away with two in the fourth, three in the fifth, one sixth, and came into the crucial seventh agog, four runs down (partly because the Twisteds had another homer-hitter in their bag, George Heaslip). The D'Amicos tried, coming up with three tallies in the final inning, but their total of nine runs didn't match the T.D.'s 10. Then the Hawkeyes moved in on the Ducks, but the taste of victory was still sweet on the T.D.'s lips, and the Twisted ones beat the Hawkeyes, 8-5. The Ducks had a two-game winning streak in the National League!

The Hawkeyes then lost again, this time 11-8 to the Vikings, who sported a 2-0 won-lost record. The Vikings stand 2-1 now, though, following an unfortunate confrontation with Research, whose "up the middle" defensive strength provided a one-run victory margin.

A run-away

Over in Wyandanch where the league has three teams (Boppers, Fiberglass, and Soul Brothers), the rounders are watching a run-away. Power is the name of the game for the Soul Brothers: In five games played they've popped the Boppers twice, 14-4 and 9-1, and ripped up Fiberglass three times, 5-1, 5-1, and (catch this one)! 14-0, more a football score. But the Soul Brothers have been gentlemen all the way, letting everyone in the line-up get his cracks. First it was Bruce Driver, then Don Seagraves, then Tony Alaimo, then Vic Rumore, then Rudy Reid. When a team amasses 83 hits and 47 runs in five games, would you call it a juggernaut? The Boppers and Fiberglass seem in sore need of a couple of things—pitching and fielding. For example, when Fiberglass met the Boppers the score was 27-10, there were 35 hits and 18 errors. But then again, it's the exercise and clean fun of it that really counts. . . .

The Druids in the Tuesday night National League began the season with a loss but climbed to a 1-1 record by blasting the Supporters (who needed some), 14 to 4. All was even, one apiece, when the Druids moved into the third inning and came out with four runs. Next time they scored five, and, as a parting salute that the Supporters could have done without, they hammered home four in the top of the seventh. The Druids' Sam Dastin banged out two doubles and Vinnie Mikol slashed a triple; Dastin, Joe Manfre, and Marv Meyer each collected three hits in the fray. Later, in a contest against the snarling Tigers, winning was tougher for the Druids. After four innings, the Druids held a 9-4 lead, and when they added three more in the top of the fifth, it seemed to be a romp. But the Tigers clawed out three in the bottom half and got two more in the sixth. The Tigers needed three to tie in the seventh. They managed to get just two, and it was Druids 12, Tigers 11. The big blow for the Druids was Dick Truran's four-bagger.

When the Supporters met the Campbell Kids, the long sleep of impotence was over: Two round-trippers by Dom Mastandrea and a solo shot by Joe Avanzato with two mates aboard sparked the Supporters to a 10-4 decision. Other action in the National League saw the OAO Stars brutalize the Titans. Larry Haskell hit for the cycle—single, double, triple, and homer — and Al Grillo went four for five.

Off to Martinique

To celebrate Thanksgiving, save three vacation days, tack them on to the four-day November 25-28 Thanksgiving weekend, and you've lined up a long, lazy holiday at the Bakoua Beach Hotel on the island of Martinique, French West Caribbean. Sign-up date is Wednesday, July 7, 5:30 p.m. in Plant 28. Full payment of $297 is required, so bring your checkbook.

The trip, sponsored by the Bethpage Aircraft Tour Club, will be by Air France, leaving Sunday, November 21, and returning the following Sunday. Fee includes air fare, twin-bedded room (double occupancy), breakfast and dinner daily, and some other items.

Grumman employees and retirees, as well as members of their families, are eligible, with a possibility of guests, depending on space available. (Names will be placed on a guest list.) A meeting of the group will be held approximately two weeks before departure. For more information, call GAA, Ext. 2133 or 2269.

Rifle team wins again

The Grumman Gophers Rifle Team have done it again! They've won another Long Island Industrial League title.

This time the Gophers did it by back-to-back wins over Pan American and IBM. The 758-733 win over Pan American featured the steady eye of Hank Womble, who turned in a 196. Right on his heels were Ed Brandis' 189, Dick Imgram's 187, and Warren Block's 186.

Against the IBM squad, Imgram posted a 193, George Hilton a 192, and Womble and Bob Mansbart had 191s to overwhelm IBM 767 to 670.

This past Wednesday, at the annual league dinner, trophies were handed out: Womble for high aggregate and Hilton for high average.

For Rent

HOUSE: Hampton Bays, 3 bdrm., dinette, bsmt., gar., o.h.w. heat, Sept.-June, $160/mo. ED 4-3015, after 6.

LOG CAB.: On lake, 3 bdrm., 1 blk. bch. on sound, wk. or mo., July-Aug. 212 RN 3-4355, after 6.

ROOM: W. Islip, pvt. ent. & bath, security. JU 7-5238, after 6.

HOUSE: 3 bdrm. ranch, kit., liv. rm., din. rm., bath, full bsmt., attach. gar., corner plot, comp. fenc., new. remod., $250/mo., 1 mo. security. 732-9074, after 6.

HOUSE: Catskill Mt., furn., 3 bdrm., $90/wk. 427-5364.

HSEKPG. COTTAGES: Parksville, N. Y., from $75/wk. 271-0308.

TENT TRLR.: Hdtp., comp. kit, dinette, slps. 7, $64/wk. HA 7-7344.

ROOMS: Uniondale, 2 furn., pvt. bath. & ent., w-w, nr. Hofstra U., avail. 7/1. 292-0442.

HOUSE: Hicksville, 4 bdrm. furn., nr. transp., 1 yr. lease, availa. 8/15, $300/mo. plus util., security. WE 1-4576.

Wanted

APT.: E. Nassau or W. Suffolk, unfurn. 2½-3 rm., yg. work. couple, Aug./Sept. occup. TU 8-0045, evgs.

APT.: E. Meadow, Levittown, Hicksville vic., 3-4 rm., unfurn., yg. work. couple, Aug./Sept. occup. 212 347-2627.

APT.: Or house, 2 bdrm., furn., 3-4 mo. occup. start. Aug. 581-2772.

APT.: Nassau County, 2 bdrm., pvt. kit., bath & pvt. ent., $150/mo. 238-0108.

BOAT TRLR.: For 18 ft. boat, trlr. must tilt. OR 1-3799.

MIRROR: Rear view, driver's side for '68-'71 VW bus. R. Kennedy, Ext. 86473.

PIANO: Baby grand or spinet, gd. cond. 433-5819.

APT.: 3 rm. for yg. bus. couple, under $200/mo, Nassau or W. Suffolk County. WE 1-8269.

APT.: For yg. couple. 921-0865.

MISC.: Used player piano rolls. 269-1117 after 5.

MANUAL: On auto repair for '66 Mustang & '67 Olds. 676-4352, after 8.

Car Pool

LITTLE NECK: Floral Pk. or Bayside area to Plt. 5, 8-4:40 p.m. 212 321-0761.

N. BRENTWOOD: To Plt. 2, 7:30-4 p.m. 273-9411.

For Sale

CLAM GARVEY: 16 ft., ½ plywood, unpaint., new. LT 9-0179.

AIRCRAFT: '68 Skylane, full electronics, DME, transponder, glide slope, dual 360 MK 12As, VOA9, MBT 3, new T-12-CADF, strobe, total time 740 hrs., sell or look. for partners. 212 BA 5-3487.

BUICK: '64 Le Sabre, $600. MO 9-6706, after 5.

BUICK: '61 Le Sabre, 4-dr., new transm., exh. sys., mast. bk. & start., auto., pwr. steer. & bks., 8 mtd. tires incl. snows, ask. $200. 433-4898.

VOLVO: '65, 122S, 2-dr. sed., radial tires, AM/FM, $650. 234-1756, after 6.

CORVAIR: '66, low mi., orig. owner, auto., R&H, snows, $475. 825-3429, after 5:30.

FORD: '65 Galaxie 500, 4-dr. sed., auto., pwr. steer. & bks., air cond., $700. 368-2226.

CORVAIR: '66 Corsa conv., 4-spd., $650. 433-6812.

FORD: '68 Fairlane 500 conv., V-8, auto., pwr. steer., low mi. 433-6812.

PARTS: Triumph bdy. parts & windshld for TR-3, best offer. 842-3028.

TRAVEL TRLR.: '69 Tag-A-Long, 16 ft., fully equip., slps. 6. 273-3946, after 6.

HOUSE: S. Huntington, 1/3 acre, wood. corner, 3 bdrm. split, 2½ bath, w-w, formal din. rm., new country kit., panel den, fin. bsmt., air cond., appli., Dist. 13, $43,500. 271-4380.

CRUISER: '62 Norwalk, 25 ft., fully equip., new Chrysler eng. 922-6180.

DUMP TRUCK: '58, 8 ft. plow, 2 yds., new tires, $750. 781-2680.

MISC.: 6,000 BTU Norge wind. air cond., $100; 6,000 BTU Philco wind. air cond., $100; 21 in. Remington chain saw, $100; 2-dr. refrig., freezer, $40. 997-7259.

SURFBD.: 9 ft. 6 in., gd. for begin., $25. 427-7009, after 7:30.

BOAT: '69, 26 ft. Luhrs, fully equip. MO 9-9400, after 5.

For Sale

JONBOAT: 14 ft. Sears, fbgl., 3 hp Evinrude, adj. cartop carrier, $200. Carol Copas, Ext. 57-361.

MISC.: 5 ft. circular Calif. redwood patio tbl., 4 benches, seats 12, $75; Col. furn., sofa, chr., 2 tbls., 2 lamps, rug, $175; assort. aquar. equipment, 10 gal. tank, comp., pumps, filt., make offer. 289-5623.

JUVENILE BDRM SET: Wh. formica tps., drk. wal. fin., mod., sgl. hdbd. & wood frame bd., hgt. tbl., chest, dbl. dresser, $130. MY 4-7384, after 6.

SHOPSMITH: W/attach., $100. 223-0945.

MISC.: Oster animal clipper, motor driven, $15; illus. World Encyclo., 21 vol., '65 edition, $15. 543-6637.

PUPPIES: German shep., AKC, male & fem., born 5/19. 378-5612.

For Sale

HOUSE: Huntington, sch. dist. 6, 3 bdrm., 1½ bath, din. rm., eat-in-kit., panel. fam. rm. w/firepl., treed, fenc., ¼ acre, refrig., dishwash., air cond., carpet., ask. $33,900, 5½% mtge. 427-3543.

HOUSE: Holbrook-Sayville, 4 bdrm. Col., 2½ bath, panel, den, bsmt., s-s, 3 appli., Indscpd., $34,500. 589-8063.

HOUSE: Bethpage, 3 bdrm., 2 bath, fin. bsmt., bar, 6 appli., 3 air cond., carpet., o'sz. gar., roof. patio w/brick bar-b-q, ¼ acre, $34,000. PE 5-1922.

HOUSE: Dix Hills, Huntington, 1 acre wood., 4 bdrm., 2½ bath, 2 car gar., appli., w-w, xtras, $57,000. HA 3-7592.

GOWN: Empire style, yel. w/avacado ribbon thru wh. lace, sz. 7-8, $15; yel. hdpc. w/pearl trim. 924-3730.

at your SERVICE

This is a free service to Grumman personnel for non-commercial advertisements, accepted on a first-come, first-served basis. Classified advertisements are carried in PLANE NEWS only on the basis that everyone replying to such advertising will receive fair and equal consideration regardless of their race, creed, color, or national origin.

Type or print ad on form available at Employees Service and Engineering counters, and send via interplant mail to PLANE NEWS, Plant 5, Bethpage. List home phone (with area code if outside Nassau or Suffolk). Limit: one ad per person per issue. No item under $10, no firearms or ammunition.

For Sale

HOUSE: Huntington, 3 bdrm. split, 2 bath, formal din. rm., new eat-in-kit., 18x25 den w/firepl., cathed. ceil. liv. rm., panel. beam ceil., w-w., air cond., 2 lrg. patios. Fred Haul, Ext. 2377.

HOUSE: Nr. Bethpage, 3 bdrm. Col., 1/3 acre, fenc., Indscpd., fam. rm., lrg. eat-in-kit., formal din. rm., s-s, xtras, ask. $29,900. 643-7501.

BDRM. SET: Mod., lrg. dressers, twin mirrors, bd. frame, bkcase hdbd., sol. cherry, $225. 665-3943, after 5.

REFRIG.: 14 cu. ft. Sears Coldspot, 5 yr., $100. 273-4201.

KIT. SET: Gray tbl. w/ext., 4 vinyl patt. chrs. JU 1-3125.

KIT. CTR.: New compact 30 in. comb. gas stove, sink, & refrig., $250. 731-0834, after 6.

LAWNMOWER: 18 in. pwr. reel Sears Craftsman, $25. 694-4062, after 5.

TYPEWRITER: R.C. Allen std., $25. 334-0963.

PUPPIES: Basset hound, AKC, reg., male & fem., shots, used to child., $100. 589-0731.

HOUSE: N. Massapequa, mother & daughter, 3 bdrm. ranch, all brick, firepl., 100x100, fully Indscpd., 2 add. bdrm. apt. down w/sep. ent., bath & kit., $200/mo. rental, take over 6% mtge., $36,000. 799-8788.

HOUSE: Bethpage, 9 rm. Cape, s-s, fin. bsmt., gar., 60x100, $33,500. PE 1-7008.

HOUSE: Plainview, Wash. Ave. vic., 3 bdrm. hilltop ranch, 2 bath, liv. rm. w/firepl., formal din. rm., lrg. eat-in-kit., den, ldry., 2 car gar., patio, all appli., 7 yr., xtras, ask. $58,000. 692-2738.

HOUSE: Hempstead, 3 bdrm. Newport Col., Mass. style, 50x100 corner lot, 1½ bath, porch & gar., fin. bsmt., 2 comp. kit., up & down, 2 firepl., 4 exits. IV 9-0649.

HOUSE: Bethpage, 8 rm. split, ctr. hall, 2½ bath, alum. sid., full bsmt., patio, w-w, appli., nr. RR, buses, & Grumman. WE 5-7624.

HOUSE: 8 rm. split, 3 zone heat., ext. like, improve., 2 bath. CA 1-1550.

HOUSE: Lakeview, W. Hempstead, 4 bdrm. Cape, eat-in-kit., 2 car gar., s-s, w-w, oil heat, full bsmt., sewers, $28,000. RO 4-2029.

PROPERTY: E. Hampton, 3 mi. harbor, ½ acre, wood., bch. & marina, $5,000. JU 7-0369.

HOUSE: E. Northport, 2 bdrm. wide line Cape on wood. & fenc. 1/3 acre, din. rm., gar., above ground pool/deck, s-s, 4 appli., fin. 2nd fl. for 2 add. bdrm. & bath, $29,500. 757-7523, after 6.

HOUSE: Adj. Belmont Pk., 3 bdrm. Col. ranch, 2 full bath, formal din rm., eat-in-kit., lrg. panel. liv. rm. w/firep., porch & patio w/pool, 100x140 treed plot, xtras, $36,000. MO 1-3615.

FURN.: Pastel pink 96 in. lg. couch, best offer o'$50. HA 3-5994, after 6.

MISC.: Alum. comb. storm & scrn. dr. w/frame, 37x18, $15. William Newton, Ext. 2988.

For Sale

HOUSE: Port St. Lucie, Fla., CBS, 3 bdrm., 2 bath, Fla. rm., s-s, terrazo flrs., refrig., wash/dry., patio & shed, lawn tools, drapes, all elec., cent. air cond., & heat, 75x100, trees, less than 2 yr., fl. plans & photos avail. 212 343-6875.

MISC.: Keystone 8mm, 750w movie proj. w/400 ft. reels; 5-band Navy surplus short-wave radio; wrought iron rm. divider rail.; lawn sweeper; upright front open. sectry, desk. 433-8631.

CB RADIOS: 1 Poly "N" 8 w/tuner, meter, D104 mike; 1 Poly "N" 4 mobile Hellcat 9 mobile ant, hy gain CDR base ant., swr meter, field strength meter, xtras, $200. HA 7-7978.

MISC.: Eico 5 in. slope wide band, 40, 4.5 MLS, useful to 6 MCS. 727-7831.

ENCYCLOPEDIAS: Grolier's, new, 50 vol., $1,350; xtra educational vol. & classics, $500. 212 786-4358, after 6.

MISC.: Decorator shades & lgt. fixtures, 1/3 orig. cost. 661-4862.

MISC.: Gendron coachette, burgundy/wh., 4 whl. bk., lift-out bdy., matt., wind break., $45; fold, Biltrite carr. & matt., blue/wh., conv. to car bd., $20. 546-8380.

MISC.: Conn prof. trombone, 1 yr., $100; Panasonic reel to reel tape record., $50; 10 gal. fish tank, full lgt. hood, pump, filt., gravel, etc., $20. 265-1249.

AWNING: 7x4 grey & wh., Cool Vent, $50. WE 1-2268, after 5.

PROJECTOR: Argus Showmaster 871, super 8, auto. threader, $55. SU 5-6797.

TENT: 10x10 scrn., 2 yr., $25. OR 1-2957.

CHORD ORGAN: Farfisa w/bench, hi-gloss wal. fin., $175. TU 4-0039, after 4.

POOL: '70 Sierra/Doughboy, 12x3½, filt., circulator, ladder, 20 gauge liner, vac., chemicals, 2 mos., $135. HA 3-3611.

For Sale

MISC.: '60 Chevrolet 4-dr. sed., comp. tuned, $195; 12 hp Scott outbd., 36 gal. tank & auto. bailer, $75; 4 brnr. gas range, full oven & broil., 6 mo., $60; blond din. tbl., 4 leath. back. chrs., $50; Sears 8 cycle auto. washer, $45. 293-6845.

TIRES: 2, G70x15 Goodyear poly, less than 2,000 mi., $50. 378-5612.

TIRES: 2, 6.15x13 on Falcon rims, low mi., $10/both. 796-4933.

HONDA: '66, new clutch & batt., elec. start., $350. 671-0517.

MISC.: Man's 10-spd. Ital. racer, $30; 13x15 Magee nylon beige tweed rug w/pad., $35. AN 1-8728.

GO-CART: Cust. blt., West Bend eng. 212 EX 2-2400, bet. 9-5 p.m.

MG TD: '53, new tp. & side curt., spare parts, ask. $1,900. 751-0391.

BOAT: '70 Winner Baronet, 19 ft. fbgl., '70, 85 hp outbd., cab., hd., cov., 3 mo., $3,500. MO 6-8087, after 6.

CHRIS CRAFT: '67 Corsair, fbgl., 150 hp, 1.0., S-S, fully equip., $3,000. HA 1-4072.

SURFBDS.: 9 ft. 4 in. Bunger, $35. JU 4-5718.

DINGHY: 8 ft. wood. w/7 ft. oars, rdy. for water. 735-0285.

VW: '70 sed., 15,000 mi., tint. front windshld. 751-9542.

BUICK: '63 LeSabre conv., pwr. steer., bks., & wind., $250. 543-7097.

GO-KART: Racing., 10 hp McCulloch eng., hi-rise manifold, centrif. clutch, live axle, Intern'l. drum bks., rac. slicks, $200. 473-7762.

BOAT: 15 ft. Sea-Ray fbgl. runabout, 80 hp Evinrude elec. start., xtras, $1,575. 481-6628.

PUPPIES: Shihtzu, AKC, male & fem. CH 9-9183.

T-BIRD: '62 blk. conv., pwr. steer. & bks., 2 snows, air cond., new batt., tint. wind., $395. LI 1-6133, after 6.

VW: '69 Bus, blue w/wh. tp., 7 pass., blk. uphol., 33,000 mi., serv., $2,200. 273-6411.

MOTORCYCLES: '70 Suzuki Savage 250cc, $650; '70 Yamaha CT-1, 175cc, $525, both rd. or trail. OV 1-1286.

BOAT: '60 Dunphy lapstrake, 16 ft. runabout w/windshld. & steer., $225. 893-2212.

BOAT: 32 ft. Skiff w/wo motor, '70, 225 hp Parmer, f.w.c. WE 8-0960, after 5.

BOAT: '58, 16 ft. Thompson, 35 hp Evinrude, '59 trlr., new conv. tp., elec., xtras, $695. WE 5-7697.

BOAT: '57 Trojan, 22 ft., upper part of cab. burn., galley w/icebox, sink, stove, 2 bunks, 100 hp Gray marine inbd., $600. SU 1-2992.

HOUSE: Pt. Jefferson Vill. sch. dist., 4 bdrm. cust. blt. Col., 2½ bath, stone firepl., Indscpe, water view, xtras, $45,990. 473-5109.

DISHWASH.: Port. Lady Kenmore, used 1 yr., coppertone, $100. 751-1872.

TEEN BDRM. FURN.: Pink dbl. dresser, 2 ngt. tbls., hang up desk or dress. tbl., chr., gl. tps., $60; driftwood lamp, $25. 694-0417.

CAMERA: 35mm Zeiss Contaflex w. f2.8, 45mm lens, Reflex w/blt. in lgt. meter. JU 8-5779.

FORD: '62 Sunliner conv., 352, 3-spd., auto., new tp., 2 new tires, bks., whl. bear., xtras, $300. 234-2623, after 6:30.

MF MIDGET: '69 yel. conv., orig. owner, new bks., just tuned, boot cov., tonn. cov., wire whls., R&H, 25-30 mpg, ask. $1,450. AN 5-7543.

TIRES: 4 w-w Firestone, H78-8:45-15, 4 ply nylon cord, less than 1,200 mi., $80. TU 4-8191.

PICK-UP: '68, ½ ton w/camper cap., 3 bunks, low mi., xtras, $2,000. IV 1-3405.

Picnic Junior Gloves

Entry registration

Entrant's name .....

Age ..... Weight .....

Sponsor's name .....

Dept. ..... Plant ..... Ext. .....

Entries are to be forwarded to John Koloski
Plant 1 Employee Services Office

The end of an era at Bethpage—say goodbyes to last LM

(Continued from page 1)

ed to bits, or to drown? Only those who read and listened to that momentous space saga at the time it was happening can appreciate the galaxy of feelings let loose within themselves. And in many, there was a numbness—a mind-boggling that accepted the fact of the moon landing and yet, somehow, did not. Then, too, there was the aftermath: the glow of triumph, leavened by a new and disturbing sense of humility. . . .

Never in history had such a huge and complicated peaceful endeavor been achieved.

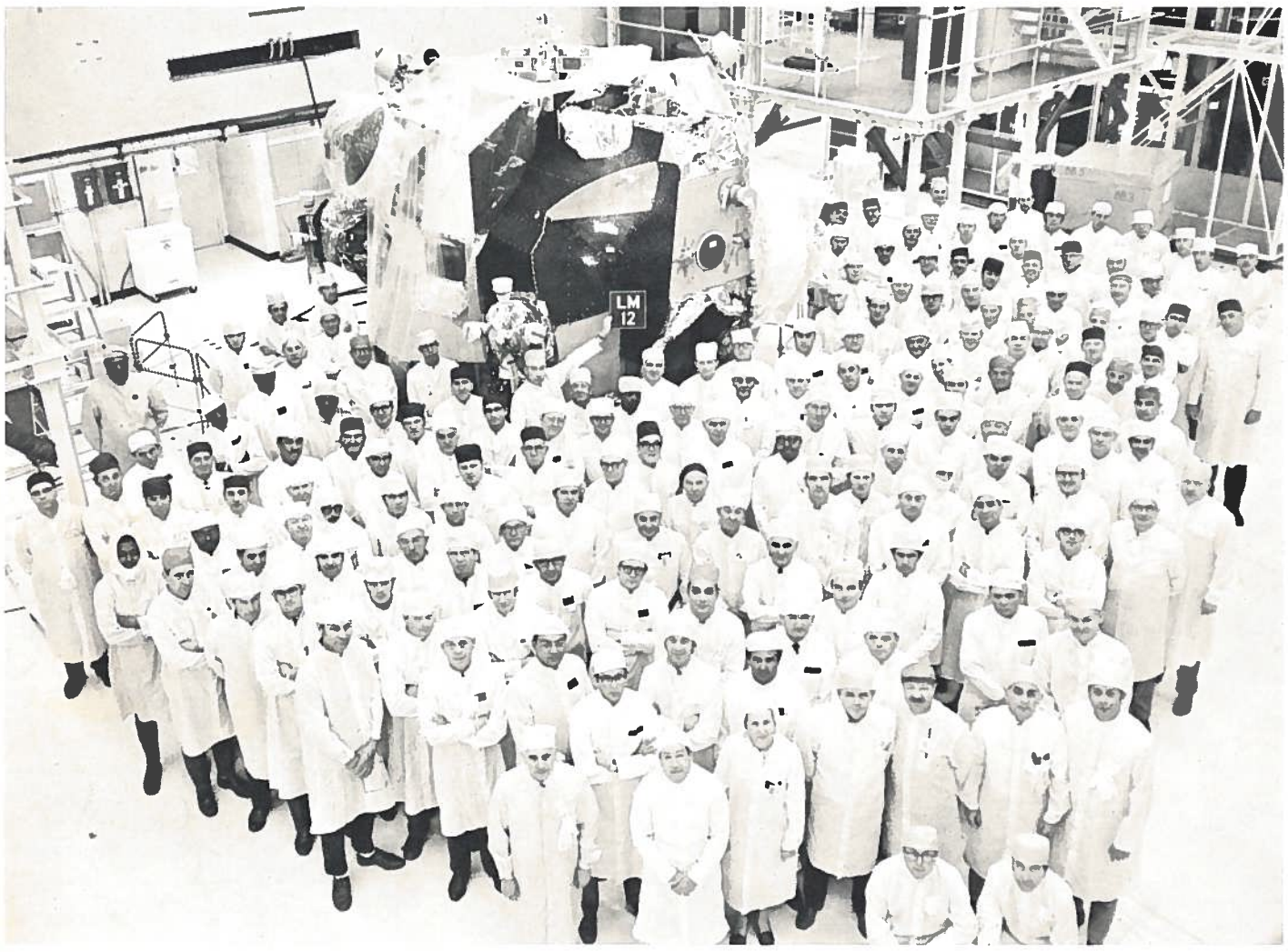
That sitting Guppy called back myriad memories, starting with the LM contract award in November, 1962. The LM changed shape; once 10 feet in diameter and 15 feet tall, the diameter became 31 feet, the height 23 feet. There were the clean room procedures. . . . There were the dog days, long shifts, six- and seven-day weeks. . . . The constant chase to uncover and remedy anomalies. . . . The mountains of subsystems and systems checks. . . . The incredible flow of paper. . . . The even more incredible mile-long point-by-point scenario that embraced just about every detail of flight except a possible moon landing by Martians.

The huge clean room in Plant 5, focal point for hundreds of white-smocked technicians and engineers moving up and down test stands and frequently crawling into tiny areas to add or replace bits of LM hardware—those clean rooms are cavernous echo chambers now. For that Guppy has now flown away with the last ascent and descent stages, and there's a vast loneliness, an emptyness that suggests Gotterdammerung . . . the twilight of the gods.

Where some 1,600 or more people labored there are but walls, a floor, a high ceiling. . . . and memories.

But the work goes on, elsewhere, at the Cape and at Houston. For three more LMs are scheduled to make their mark on a history too close to us to judge. An avalanche of spinoffs has come from Apollo-LM, everything from new and more effective ways of managing things and what cleanliness really means to new surgical techniques and advances in astronomy, and many, many more. And one senses we've just started; witness HEAO and Spaceplane proposals and projected explorations of other planets. There is our own world to analyze, too, in fresh perspective.

LM-2, reconfigured to represent LM-5, the vehicle of the first manned lunar landing, sits today in the Smithsonian Institution in Washington, D. C., a reminder and a prod: We have just begun.



Final adieus. **Many men and women played vital roles in the design, fabrication, and testing of the Lunar Module at Bethpage. Representing them, these white garbed team members were on hand a few weeks ago for goodbyes to LM 12, in Final Assembly, Plant 5, the last of the moon vehicles produced at Grumman. (Photo by Harry Prodromides)**

Start up 'mail stops' for plant deliveries

Tightening the belt a notch, Plant 5 is going to have mail stations in place of office deliveries, starting June 28. It is the last of the Bethpage-Calverton plants to adopt the pick-up system. Pick-up points in Plant 5 will be at the Engineering Counter, second floor; Mezzanine Repro opposite the Twix Room; and Shop Repro, opposite Methods.

These stations will be serviced four times a day, at approximately 9:45 and 11 in the morning and 1:45 and 3 o'clock in the afternoon. Because of security restrictions, mail should not be placed in the outgoing bin after 3 p.m., and all mail should be picked up before the end of the working day.

Highly critical material can still be sent from one plant to another by Magnafax or Telecopier, but it is emphasized that this is for priority material only.

Preparing Calverton for big happening: Grumman Family Picnic

The Octopus and carousel are wound up and ready to go, the hot dogs are ordered, and the picnic grounds at Calverton are groomed to welcome the onslaught. It's picnic time again, and that big, all-day Grumman Family Outing is scheduled for Saturday, July 17.

Tickets will be on sale at all Employee Services offices through Friday, July 16. Get yours early; no tickets will be sold at the gate. Inflation hasn't moved in on this big bargain yet; adults pay $2 each, and children under 12 are free. To keep it all in the family, so to say, admission is restricted to Grumman employees and members of their families living in the same household. A single employee is permitted to bring a boyfriend or girlfriend as guest.

Now, then, don't throw your ticket stub away after you're in, because about 100 prizes are to be given away, with the drawing starting at 2:30 p.m. Grand Prize winner will have a choice of several major appliances, including 13 cubic foot refrigerator, 13 cubic foot freezer, 23-inch TV, portable automatic dishwasher, portable color TV.

Early arrivals

Gates open at 8 a.m. The flag-raising is scheduled for 10. And away you go. Some bring grills and have a round of bacon and eggs to start the day. The tired ones lie down for a nap. The youngsters head for one of the two minitrains chugging and clanging at either end of the picnic grounds, or for that crazy Octopus ride. Or they line up for the races, intent on taking home a prize. Shoe race, wheelbarrow race, potato sack race—GAA ticks 'em off during the morning hours.

Music, dancing? Al Kordula has his musicians all tuned up, and if you stroke a mean bass fiddle, let him know, on Ext. 87259. He could use one more. Matt Daniels is assistant conductor and special arranger, and vocalists Jean Golder of Plant Management & Staff, Plant 36, Ruthanne Graham of Flight Avionics, Plant 33, and Harry Hess of Contracts - Aircraft, Plant 34, will be featured.

Picnic impressario Gus D'Errico promises the usual spectacular children's show, from 1 o'clock to 2, out there under the unpolluted sky. There are certain to be comics and a high wire performance and possibly some juggling acts and magic, good for a full hour of laughs and excitement.

These will be followed by the Junior Glovers, and if you have a candidate for this lively segment of afternoon entertainment, be sure to use the form on page 7 to register your young hero. John Koloski who runs the Junior Glovers every year, sees to it that they're fairly matched, and only youngsters under 12 are eligible. The number of bouts will be limited to 25. So send in your registration early; no registering at the picnic grounds.

Sunny day on menu

Sunshine and a cool breeze are on order for July 17, as are all the traditional free refreshments: hot dogs, soda pop, milk, ice cream, and the golden suds, available by the pitcherful (bring your own pitcher) for cooling off the dads.

Lots of swings and "little" rides will please the small tots.

In case of rain (perish the thought), the program will be held on July 18.